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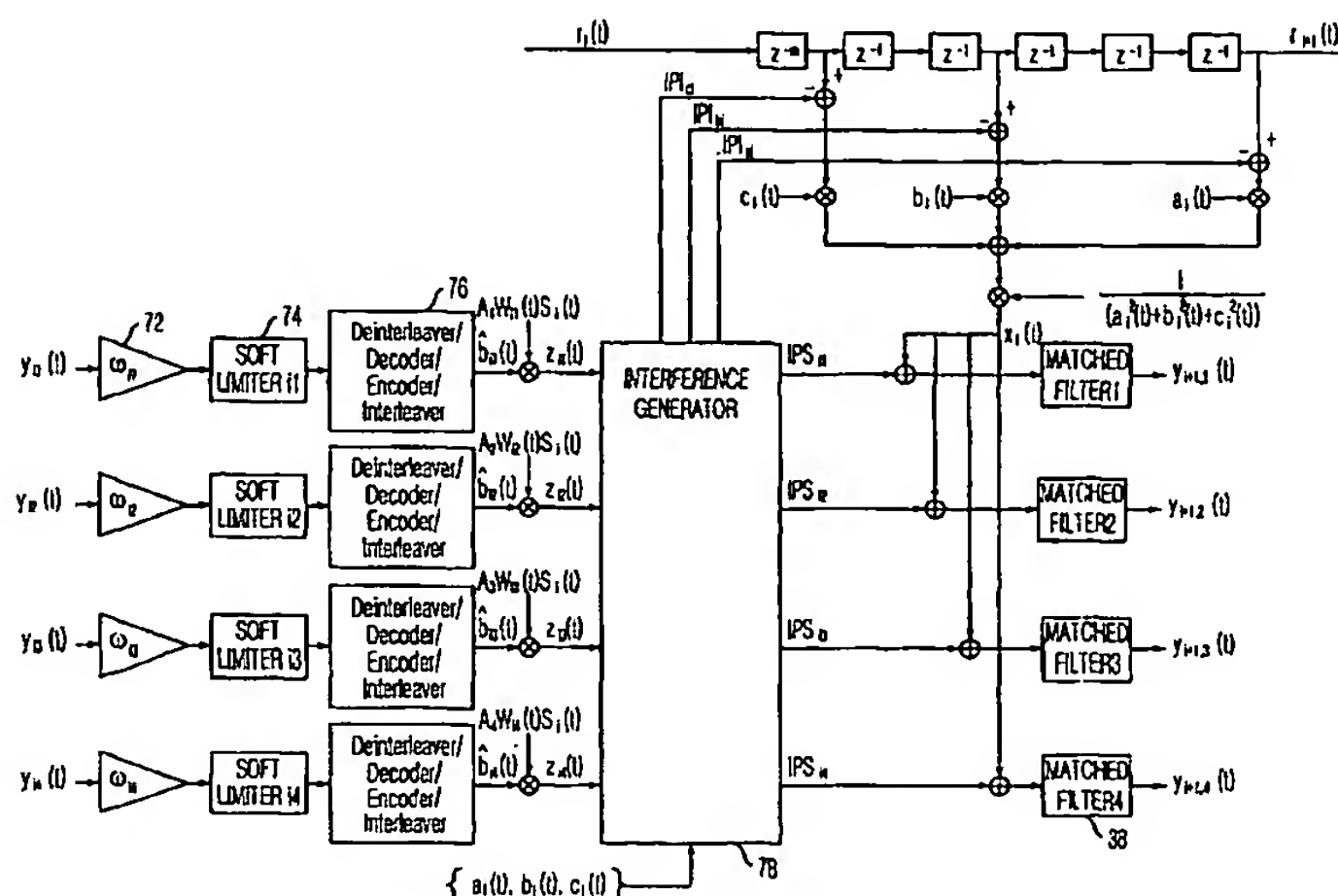
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(54) Title: MULTISTAGE ADAPTIVE PARALLEL INTERFERENCE CANCELLER



(57) Abstract: A multistage adaptive parallel interference canceller is disclosed. The multistage adaptive parallel interference canceller for a downlink receiver includes: a plurality of stages of interference cancellation units. Each of interference cancellation units includes: a matched filter for matching a signal from a rake receiver each channel signal and generating a matched signal; a soft decision unit of which a slope is monotonically increased, for performing soft decision of the matched signal and generating a soft-decided signal; a weight controller for controlling the slope of the soft decision unit; a respreader for resspreading the soft-decided signal based on a walsh code and a scrambling code and generating a resspread signal; an interference calculator for calculating interference signals due to another user signal and multipath signals; and an interference canceller for canceling the interference signals from an input signal received in the rake receiver.

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